



## PATENT ABSTRACTS OF JAPAN

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application: **12. 03 . 88**(51)Int. Cl **C08J 9/32**(21)Application number: **61202380**(22)Date of filing: **28 . 08 . 86**(71)Applicant: **KAWASAKI STEEL CORP**(72)Inventor: **TAKAHASHI SHOSUKE  
HASEGAWA KAZUHIRO****(54)CARBON FOAM AND PRODUCTION  
THEREOF****(57)Abstract:**

**PURPOSE:** To produce the title foam having large open-cell volume, by molding carbonaceous microballoons together with a binder, pressurizing the product to rupture part of the microballoons in the product while retaining the spherical shape thereof and carbonizing the product.

**CONSTITUTION:** Carbonaceous microballoons 7 having a particle size of 200W2,000 $\mu$ m are mixed with a powdered inorg. or org. binder 3 having a particle size of not larger than 250 $\mu$ m (e.g., a phenolic resin) in such a manner that the microballoons 7 are not ruptured. The mixture is put into a heated vessel and pressure-molded to obtain a preform 6 for carbon foam, in which voids 4 are formed among the binders 3 and the microballoons 7 having neither crack nor rupture. The preform 6 is optionally cured and pressurized under a pressure which is not higher than the compression strength of the preform 6 to rupture part of the microballoons

while retaining the spherical shape thereof. The preform 6 is carbonized by heating it in vacuo or in a non-oxidizing gas to obtain a carbon foam 1 wherein the voids 4 are formed among the binders 3 and the microballoons 7 having the rupture 5 while retaining the spherical shape thereof.

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